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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,219	05/19/2006	Frank Jordens	2003P00282WOUS	1393
46726 7590 03/26/2010 BSH HOME APPLIANCES CORPORATION INTELLECTUAL PROPERTY DEPARTMENT 100 BOSCH BOULEVARD NEW BERN, NC 28562				
EXAMINER				
FANG, SHANE				
ART UNIT		PAPER NUMBER		
1796				
NOTIFICATION DATE		DELIVERY MODE		
03/26/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

NBN-IntelProp@bshg.com

Office Action Summary

Application No.

10/550,219

Applicant(s)

JORDENS ET AL.

Examiner

SHANE FANG

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/C)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date: _____

DETAILED ACTION

None of the references on ISP is anticipatory.

Response to Amendment

- The amendments of claims and new claims 41-42 have been found supported by the original claims and specification 0016 and 042.
- The previous objections to claims 32-35 have been overcome by amendment.
- The previous 112nd rejections of claims 21, 23, 26, 32, and 35 have been overcome by amendment.
- The previous 102 rejections of claims 21-29 over Kalleder et al. have been **maintained**, but the position has been modified.
- The previous 103 rejections of claims 31-32 over Kalleder have been withdrawn by the examiner without argument from the applicant.
- The previous 103 rejections of claim 34-35 over Kalleder have been withdrawn by the examiner without argument from the applicant.
- The previous 103 rejections of claims 21-29 over Kalleder et al. have been withdrawn by the examiner.
- The previous 103 rejections of claims 38-40 over Kalleder et al. in view of Schmidt et al. have been withdrawn by the examiner without argument from the applicant.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 21-34 and 36-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Kalleder et al. (WO01/23190, translation provided by U.S. 6,863,923, listed on previous 892) and evidenced by Yoshida et al. (US 5667888) and Levasil (H.C. Stark product list, 09/2006).

Disclosure of Kalleder et al. is adequately set forth in ¶4-6 of the last action and is incorporated herein by reference.

In addition, as to claims 21-23, 27-29, 30-34, 36-38, and new claim 41, Kalleder et al. discloses (Ex. 3) method of making and a screen printing composition on glass (silkscreen process, 2:5-30) cured higher than 450 °C comprising Si-polymer obtained by hydrolysis plus condensation of tetraethoxysilane (TEOS) with methyltriethoxysilane (MTEOS) and silica sol (evidenced by Levasil 300/30, nano dispersion, Pg. 7) with HCl as initiator, terpeneol (bp 219 °C), a pigment of Silk Red WR2, and a thixotrope of ethylcellulose added after condensation. Ethanol is evaporated via a rotary evaporator after the hydrolysis plus condensation and would be inherently lower than 5% after paste making process of roll milling (6:10-15). The composition is enamel-free, because it contains no glass frits (Ex. 3, 6:1-5). Terpeneol is considered as a thickener to silane solution, as evidenced by Yoshida et al. (Ex. 14).

Claims 24-26 and 35 are rejected based on the last action. In addition, Kalleder et al. discloses adding temperature resistance pigment such as dispersion dye (only one dispersed dye candidate) of Dispersed Red and TiO_2 (4:60-68, 5:1-10, Ex. 2) or graphite (claim 25, out of 10 candidates). Particular to claim 35, in view of Ex. 3, wherein pigment is added after hydrolysis plus condensation, one of ordinary skill would at once envisage adding Dispersed Red after hydrolysis plus condensation.

As to new claim 42, Kalleder et al. discloses avoid using heavy metal (1:40-65) and no heavy metal or its oxide is shown in Ex. 3.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalleder et al. (WO01/23190, translation provided by U.S. 6,863,923, listed on previous 892) and evidenced by Yoshida et al. (US 5667888) and Levasil (H.C. Stark product list, 09/2006).

Disclosure of Kalleder et al., Yoshida et al. , and Levasil are adequately set forth in ¶2 and is incorporated herein by reference.

As to claim 39, Kalleder et al. discloses curing range is at least 200 °C to below the T_g of polymer matrix (claim 2). The disclosed range overlaps with the claimed range (250-280 °C).

As to claim 40, Kalleder et al. discloses optionally drying at 80-200 °C after paste printing that would inherently remove terpineol. The disclosed range overlaps with the claimed range (150-180 °C).

As to claims 39-40, It has been found that where claimed ranges overlap ranges disclosed by the prior art, a *prima facie* case of obviousness exists - see MPEP 2144.05.

Response to Arguments

The argument for allowance of amended claims has been fully considered but not persuasive.

The applicant has argued claim 21 is directed to an enamel-free paste (Pg. 8, ¶1-2). As set for the in this action, the cited reference discloses an enamel-free paste. Note instant 0018 defines "enamel-free" as the omitting of glass frits not the pigment.

The applicant has argued claim 21 is directed to a (Pg. 9, ¶1) free of heavy metal. As set for the in this action, the cited reference discloses a composition free of heavy metal or their oxides. The applicant's argument concerning the conductive filler is irrelevant to the rejections in the action.

The applicant has argued claim 21 is directed to a (Pg. 9, ¶1) fully cured composition, while Kalleder et al. discloses 20-80% degree of condensation. The

disclosed 20-80% degree of condensation refers to the hydrolysis plus condensation, not the curing of overall composition. Besides, the present invention fails to claim 100% degree of condensation of the hydrolysis plus condensation. As set for the in this action, the removal of ethanol by product is carried out via rotary evaporator and roll mill, and the ethanol would be inherently lower than 5%.

The applicant's argument of 103 rejections of claims 31-32, 34-45 and 38-40 have been found persuasive. Those rejections have been withdrawn.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHANE FANG whose telephone number is (571)270-7378. The examiner can normally be reached on Mon.-Thurs. 8 a.m. to 6:30 p.m. EST.. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sf

/RANDY GULAKOWSKI/
Supervisory Patent Examiner, Art Unit 1796